



USCG D17 Arctic Brief

27 January 2011



Cutters BEAR and CORWIN circa late-1800's

Rear Admiral
Christopher C. Colvin
Commander
Seventeenth Coast
Guard District
Coast Guard Forces
Alaska



The Problem is...



***There's water where
there used to be ice***



Captain William Deal (Commanding Officer of Coast Guard station Kodiak) flying the HC-130 Hercules over the coast near Barrow on the last Arctic Domain Awareness flight of the year. Photo by Dennis Zaki

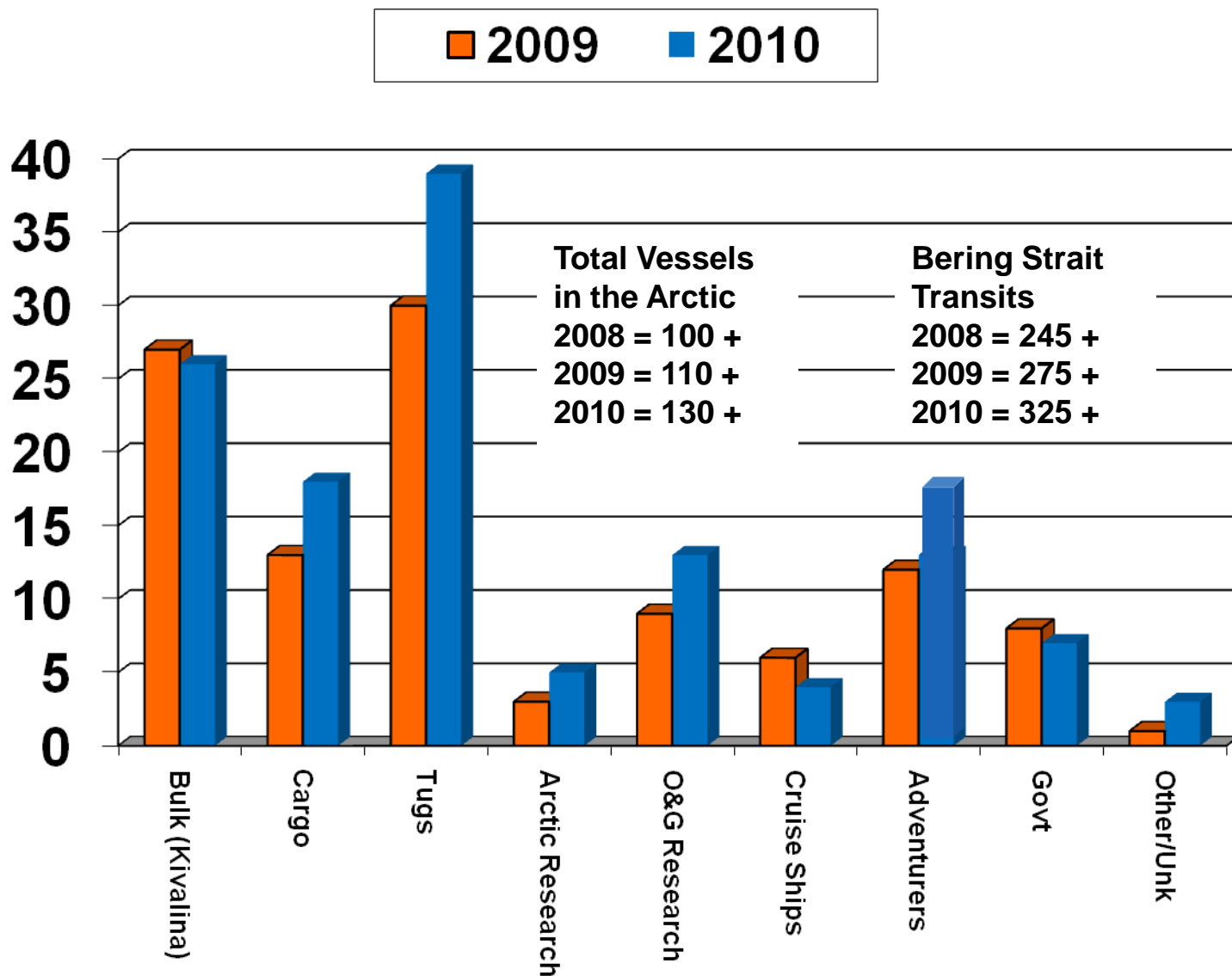
Lot's of water!



Why it matters...

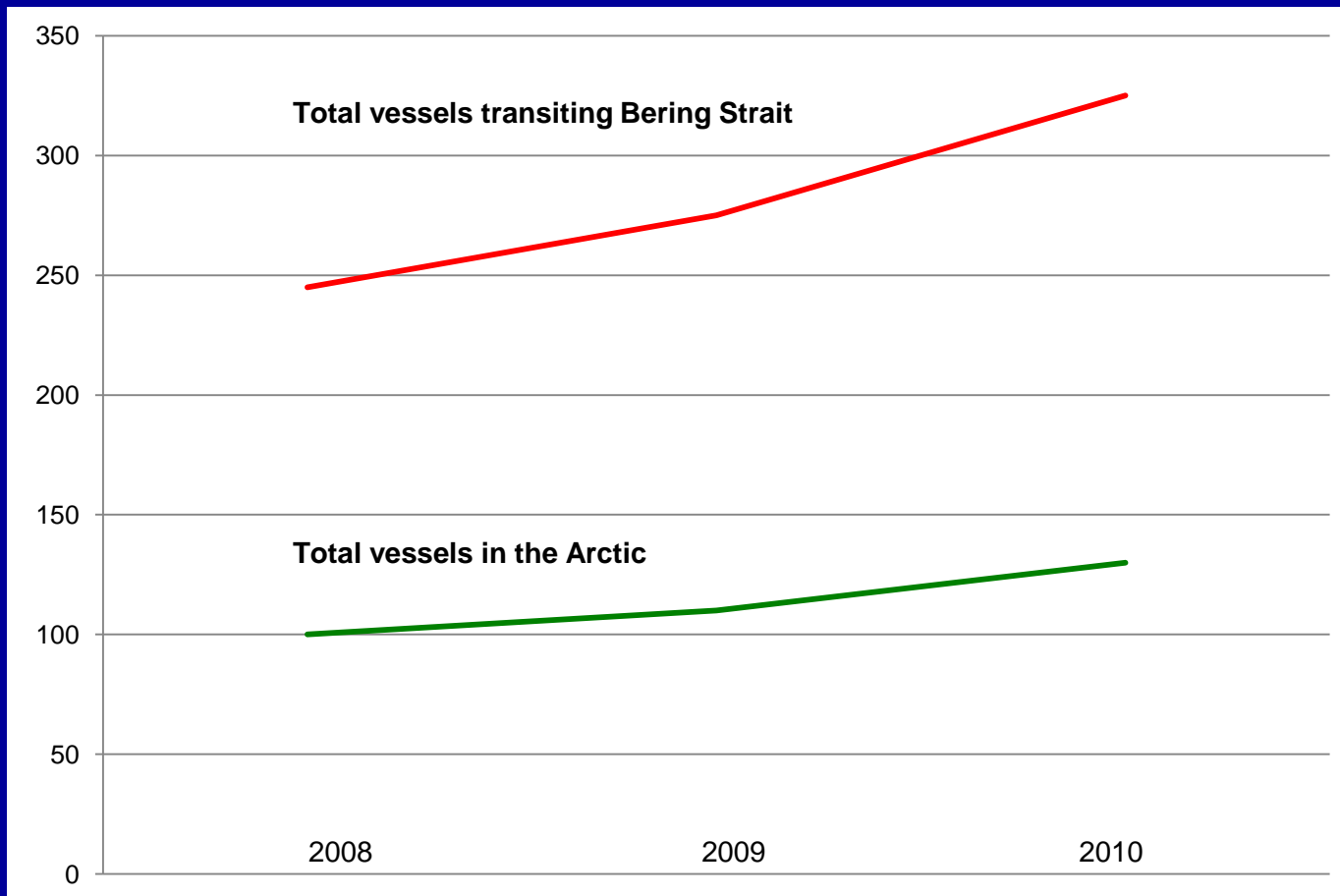


Increased Human Activity



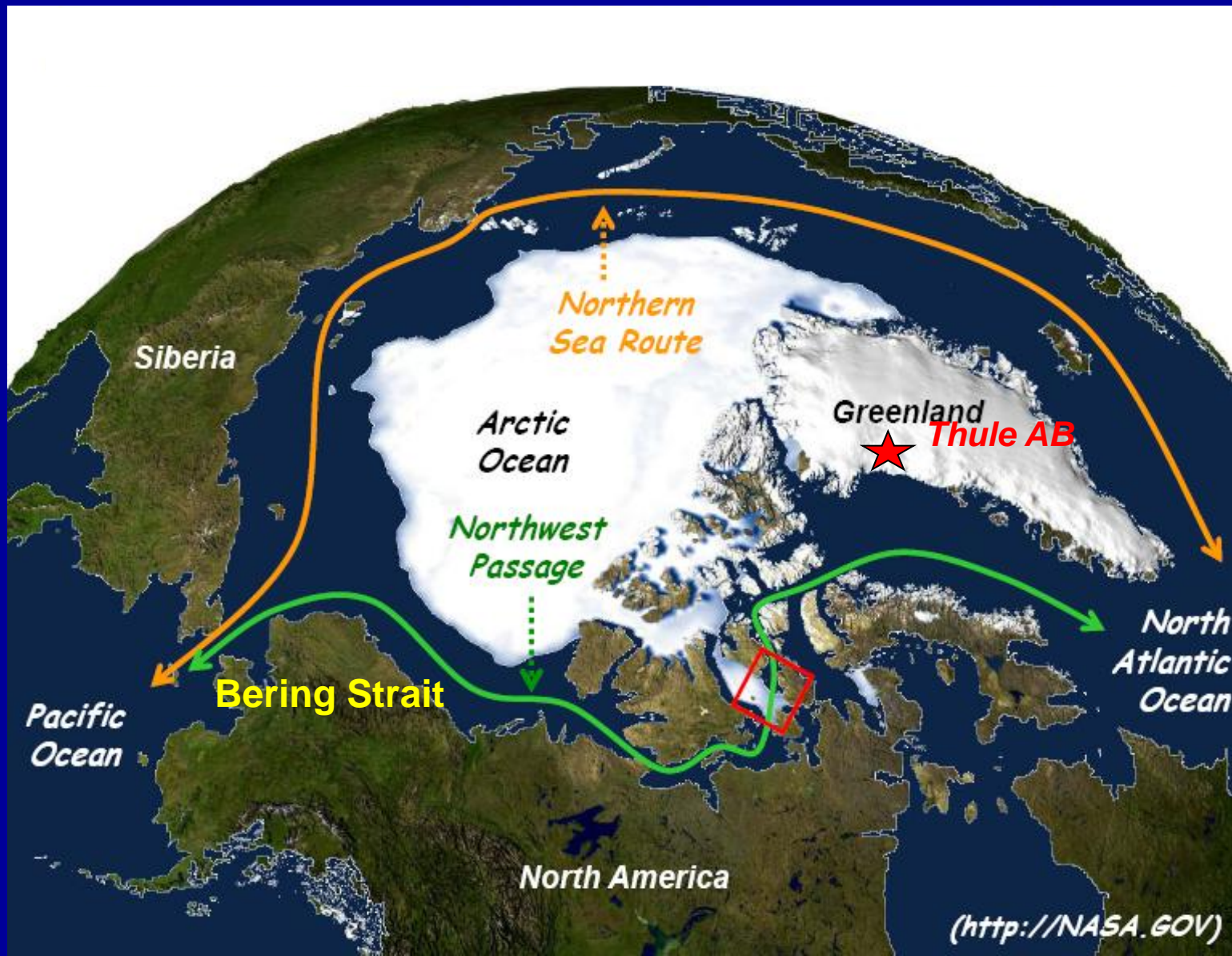


Increased Vessel Activity





Maritime Transportation System





Cruise Ships in the Alaskan Arctic

BREMEN

164 passengers
15 Aug to 08 Sep 09
from Kangerlussuaq to
Greenland to Nome
with stops in Barrow
and Point Hope



Bremen

HANSEATIC

184 passengers
13 Aug – 05 Sep 09
from Nome to
Reykjavik/Iceland
with stops in Point Hope
and Point Barrow



Hanseatic



Cruise Ship Sinks Off Antarctica

All 154 Aboard Saved



By Monte Reel
Washington Post Foreign Service
Saturday, November 24, 2007

BUENOS AIRES, Nov. 23 -- The first cruise ship ever built to ply the frigid waters off Antarctica became the first ever to sink there Friday. The red-hulled M/S Explorer struck ice, took on water as 154 passengers and crew members scrambled to safety aboard lifeboats and rafts, then went to the bottom.



Adventurers NW Passage Transits



2009 Activity (12):

M/V POLAR BOUND
S/V GLORY OF THE SEA
S/V PRITHIA
S/V PRECIPICE
S/V OCEAN WATCH
S/V SILENT SOUND
S/V BALOUM GWEN
S/V FIONA
M/V BAGAN
S/V FLEUR AUSTRALE
M/V APOISE
S/V CAPT LEM

2010 Activity (17):

S/V ARCTIC MARINER
S/V CAPTAIN LEMUEL R BRIGMAN III
RHIB FCP NORTHWEST PASSAGE
S/V ISSUMA
R/B MATHIEU BONNIER ET TICO
S/V NORTHERN PASSAGE
Y/V OCTOPUS
S/V PETER 1
S/V RXII
S/V SAREMA
S/V SOLANUS
S/V YOUNG LARRY
S/V ANNA
S/V ARIEL 4
S/V ALASKA
S/V TELEPORT
Y/V DIONE SKY



Capt Lem

OCTOPUS



Nordhavn 57 shoves off for the Northwest Passage
Bound for Arctic, Bagan closes in on first waypoint: Halifax, NS



Ocean Watch



Increasing Cargo Ops in the Arctic & Western Alaska

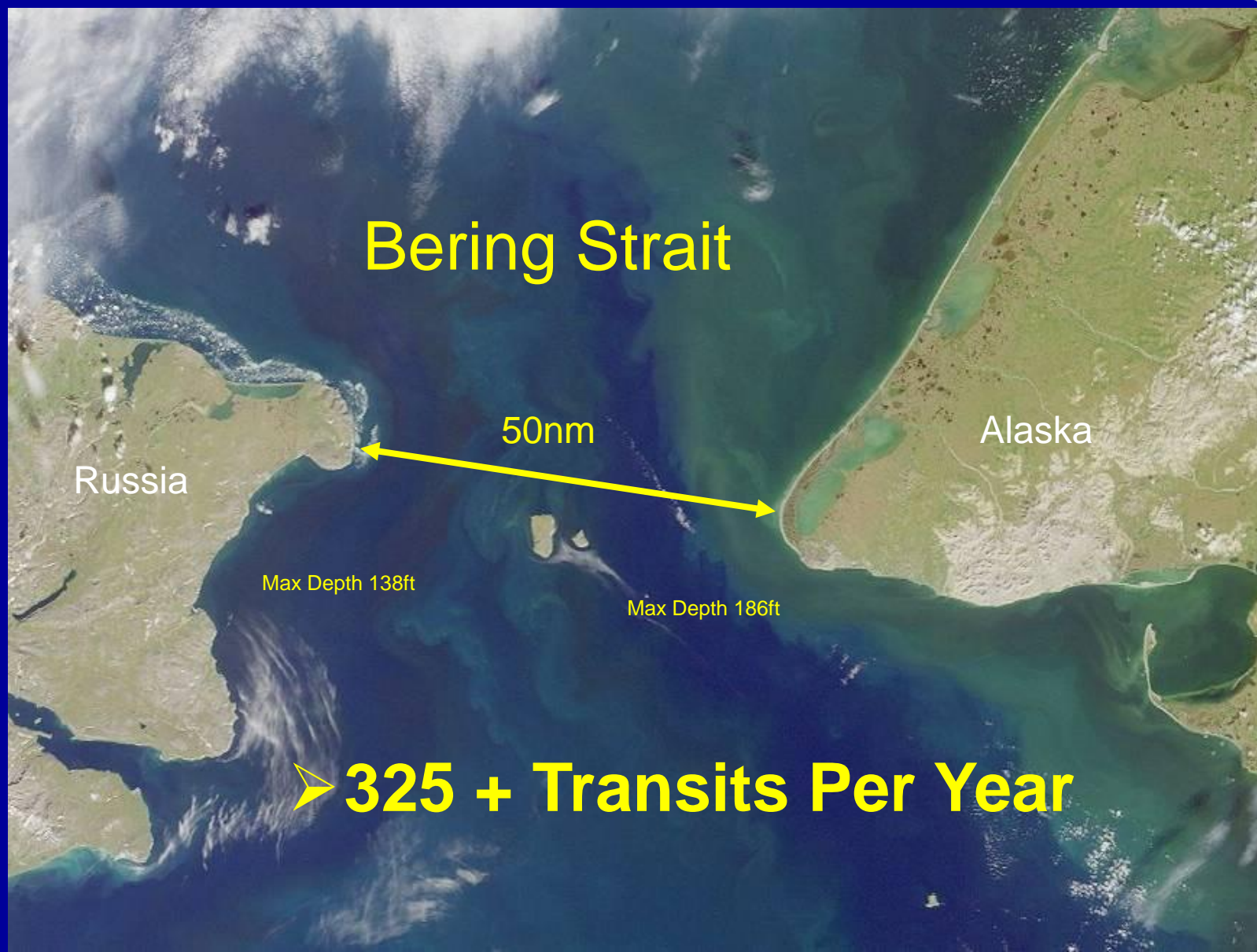


- Lifeblood of arctic villages
- Piers few and far between
- Normal ops to run barges aground to offload
- Single-hulled barges



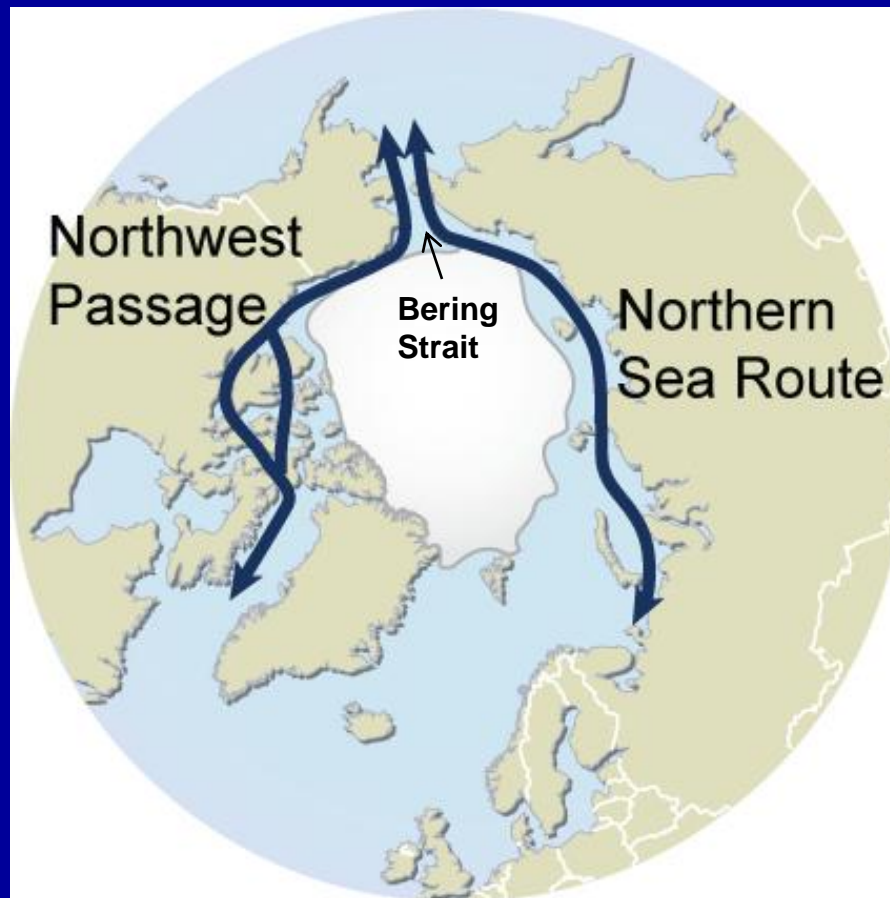


Alaska's Strait of Gibraltar





Only one way in or out of the Arctic...



For over half the world!



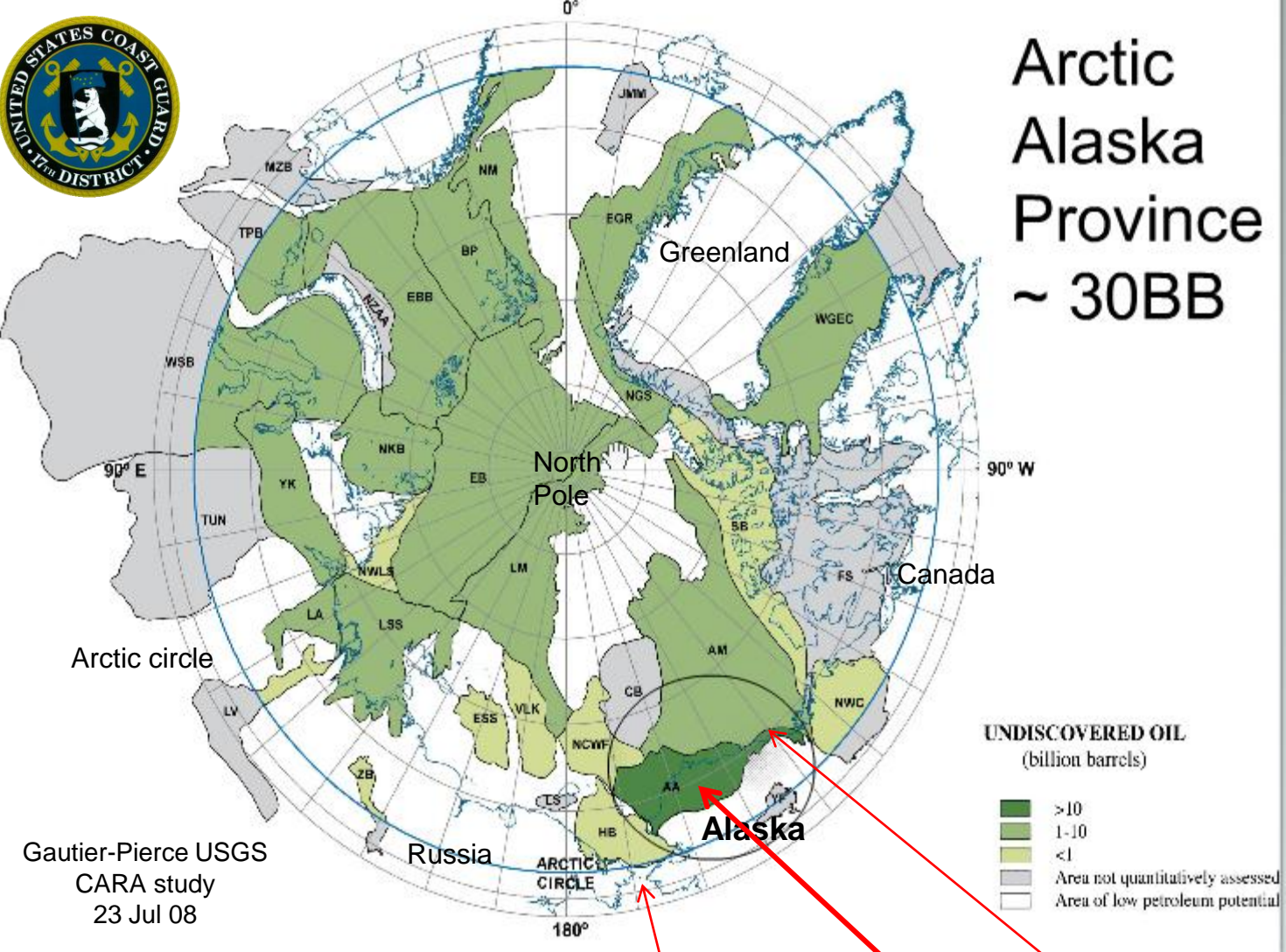
Why It Really Matters...



Arctic Alaska Province ~ 30BB

Alaska's
North
Coast:

Potential
to be the
richest
oil field in
the Arctic



Oil

West boundary
of Alaska
(Bering Strait)

East boundary of Alaska
(Canadian Border)

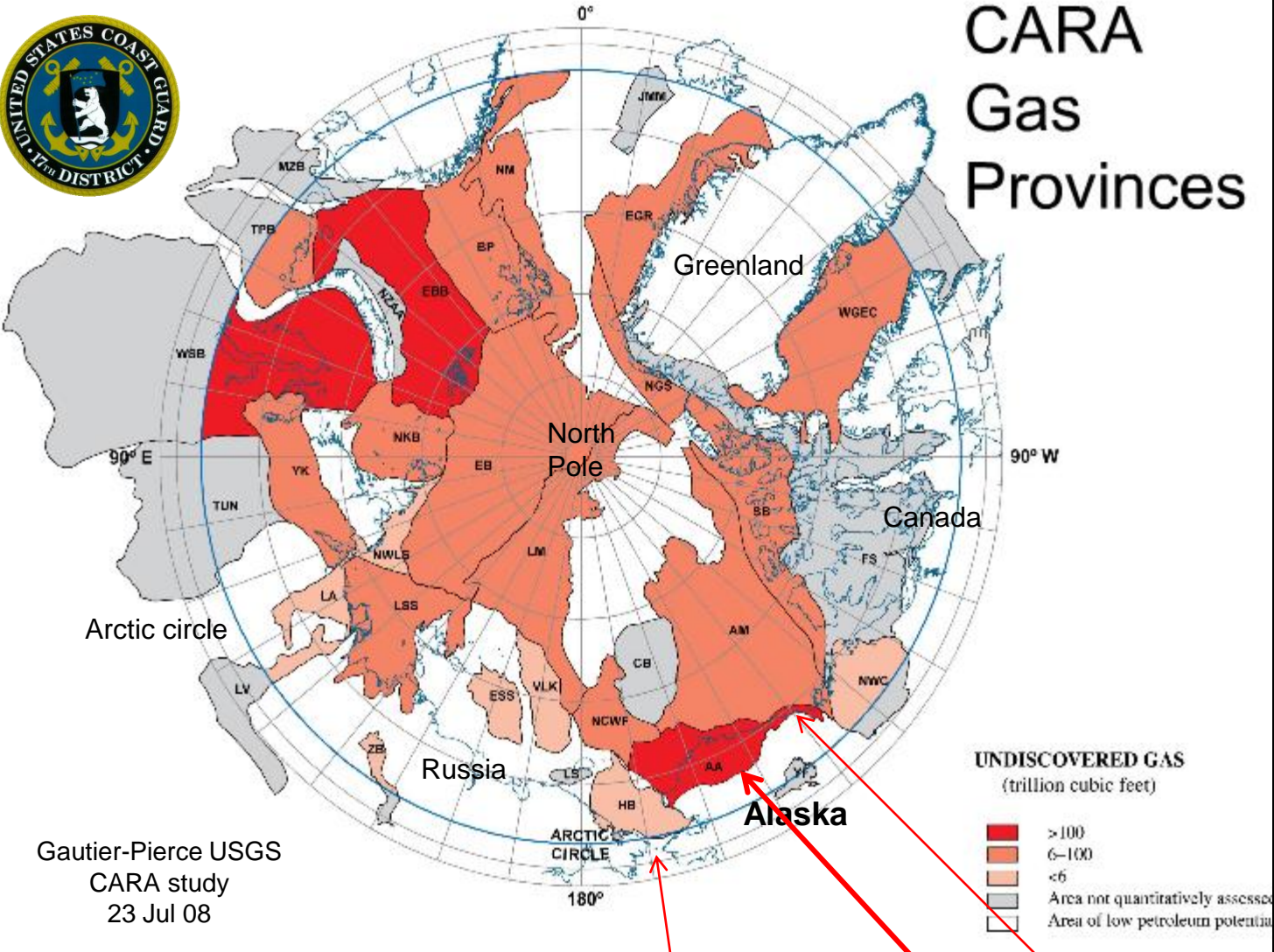
Undiscovered oil in arctic



CARA Gas Provinces

Alaska's
North Coast:

Potential to
be the
richest
natural gas
field in the
Arctic ...
Only Russia
has similar
potential for
natural gas



Gas

Gautier-Pierce USGS
CARA study
23 Jul 08



Minerals



Red Dog Port - 15 March 08



Red Dog
Mine



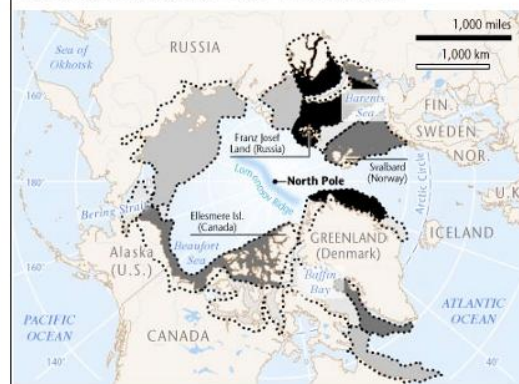
17
ore carrier receiving a tender
boat offshore



Expanding Resource Development

- Hydrocarbons (Oil & Gas) & minerals (Manganese, Copper, Nickel, Cobalt)
- Oil companies bid nearly \$2.7 billion for Chukchi Sea rights.

Arctic Oil and Gas Potential



Estimated Oil, Gas Yet to Be Found

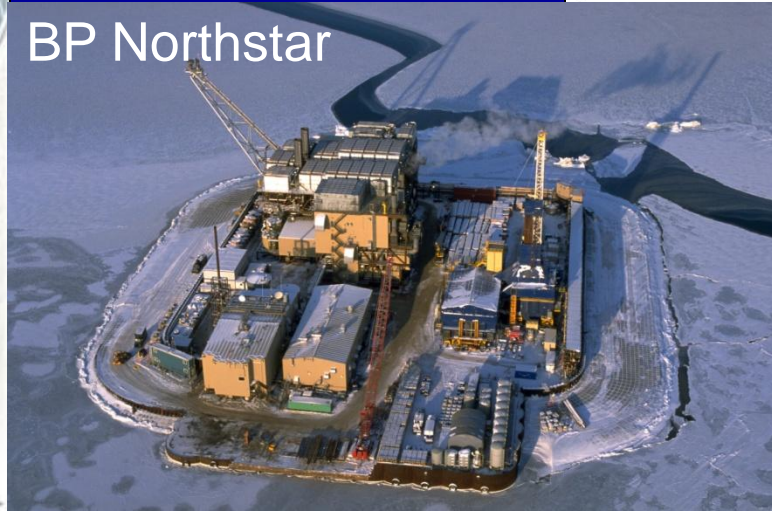
In billions of barrels of oil equivalent



SOURCE: Wood Mackenzie
Map based on a Financial Times graphic



BP Northstar





Our Arctic Neighbors

Russia Is Serious About The Arctic

Canada Increasingly So



Russia's Historic Quest For Access To The Sea



Russian History Encyclopedia: Trade Routes

[Top](#)

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Three-fourths of Russia is more than 250 miles (400 [kilometers](#)) away from seas and oceans; Russia is the world's most continental country. Even though Russia's coastline is the second longest (after Canada), the presence of sea ice hampers traffic in and out of the country's few ports during much of the winter. [Murmansk](#), for example, Russia's only warm-water port, is plagued by shorefast ice for two months out of the year. These and other factors hampered the development of a Russian navy until the eighteenth century, when Peter the Great built St. Petersburg, his famed "Window on the West." Accordingly, Russian historic trade routes have been negotiated largely within its vast interior.



Russian Claims in the Arctic

▶ Watch One-Minute World News

Last Updated: Thursday, 2 August 2007, 17:22 GMT 18:22 UK

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Russia plants flag under N Pole

Russian explorers have planted their country's flag on the seabed 4,200m (14,000ft) below the North Pole to further Moscow's claims to the Arctic.

The rust-proof titanium metal flag was brought by explorers travelling in two mini-submarines, in what is believed to be the first expedition of its kind.



The Mir-I is one of two Russian craft that dived to the Arctic floor

RUSSIA'S ARCTIC CLAIM



1) North Pole: Russia leaves its flag on the seabed, 4,000m (13,100ft) beneath the surface, as part of its claims for oil and gas reserves

2) Lomonosov Ridge: Russia argues that this underwater feature is an extension of its continental territory and is looking for evidence

3) 200-nautical mile (370km) line: Shows how far countries' agreed economic area extends beyond their coastline. Often set from outlying islands

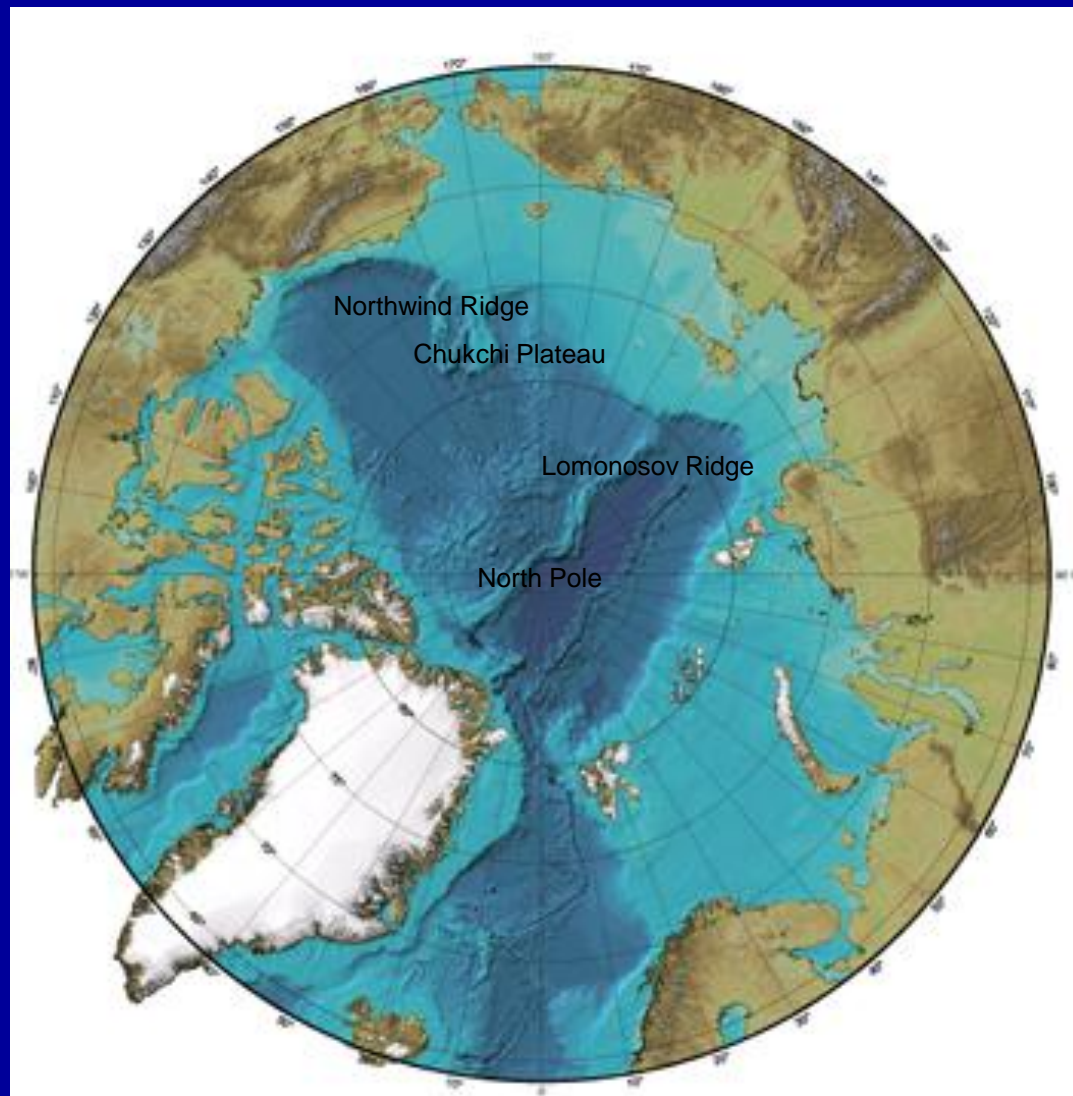
4) Russian-claimed territory: The bid to claim a vast area is being closely watched by other countries. Some could follow suit



From Dr. Zilanov 's
Arctic Fisheries
presentation,
Anchorage, Alaska,
November, 2009



Lomonosov Ridge

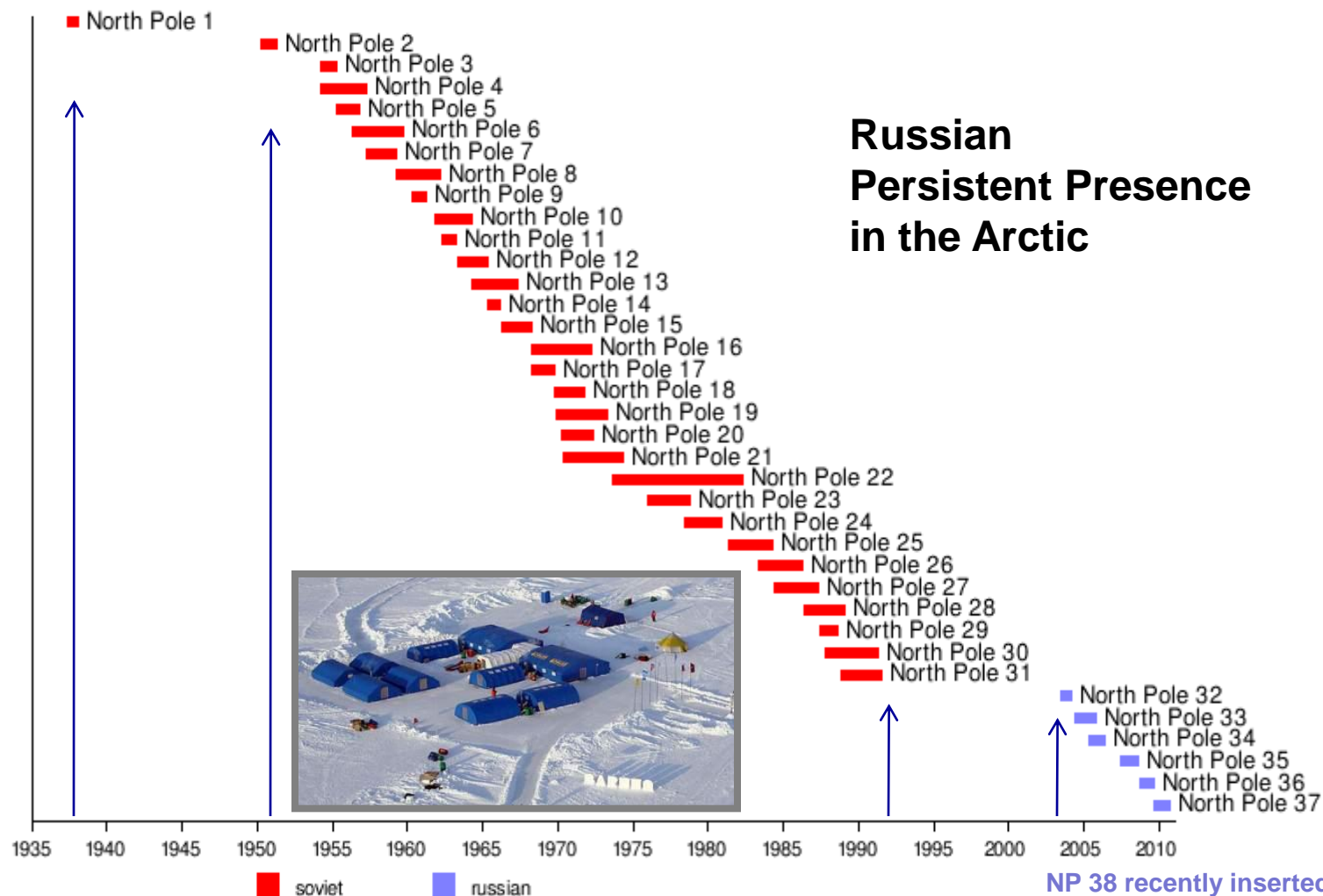


Critical to
Russia's
Extended
Continental
Shelf Claim



Soviet and Russian manned drifting ice stations

Past stations





Russia promoting arctic shipping route



1000' long Aframax ice-reinforced oil tanker carrying 70,000 metric tons of gas condensate from Europe to Asia above Russia through the Bering Strait... 5,000 less miles than Suez.



Escorted by three Russian nuclear icebreakers

Russia expects an increase to six or more similar transits in 2011...



December 2010 Tugboat Transit



Tor Viking 16 Dec - 26 Dec... Russia charged \$650,000... cheaper than Canal



Canadian Friends Are Busy In The Arctic, Too

Op NUNALIVUT

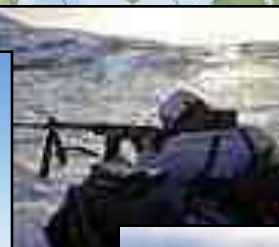
Mar/Apr 10

Op NUNAKPUT

Jul-Sept 10

Op NANOOK

Aug 10





Canada Building Arctic Patrol Ships



Ottawa buying up to 8 Arctic patrol ships

Last Updated: Monday, July 9, 2007 | 2:52 PM ET
CBC News

The federal government will fund the construction of six to eight new Arctic patrol ships to help reassert Canada's sovereignty over the North, Prime Minister Stephen Harper said Monday.

The Polar Class 5 Arctic Offshore Patrol Ships will be custom-built, state of the art and made in Canada, Harper said during a ceremony at Canadian Forces Base Esquimalt on Vancouver Island.



Maj. Chris Bergeron, right, scouts a route through rough ice on Eureka Sound, the inter-island channel separating Ellesmere and Axel Heiberg islands, earlier this year.
(Dianne Whelan/Canadian Press)

The ships will cost about \$3.1 billion, with about \$4.3 billion for operations and maintenance over their 25-year lifespan.

"Canada has a choice when it comes to defending our sovereignty over the Arctic," Harper said.

"Either we use it or we lose it. And make no mistake — this government intends to use it."

He said the ships' hulls will be reinforced with steel and be able to crunch through ice up to a metre thick, allowing the ships to patrol the length of the Northwest Passage during months when a Canadian naval presence is necessary.



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Arm Arctic patrols, government urged Weaponry would assert sovereignty: Senate committee

BY RANDY BOSWELL, CANWEST NEWS SERVICE DECEMBER 15, 2009

A Senate committee probing the role of the Canadian Coast Guard in asserting Arctic sovereignty is urging the government to arm patrol ships with "deck weaponry capable of giving firm notice" to foreign vessels that this country controls the Northwest Passage.

In a report issued Monday, the Senate fisheries committee also recommended new rules that would require all ships -- regardless of size or country of origin -- to register their presence in northern Canadian waters, strengthening the partly voluntary NORDREG system now in place.

STORY TOOLS

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Canada building Arctic military bases



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Canada to strengthen Arctic claim
Canada has said it will build two military facilities in the far north in a bid to assert its sovereignty over the contested Arctic region.
Prime Minister Stephen Harper made the announcement during a tour of Canada's northern territories.
It comes as a Danish mission prepares to sail to the North Pole to map the seabed under the ice.
Last week, a Russian expedition planted the country's flag on the floor of the Arctic Ocean under the North Pole.
'Use it or lose it'
Mr Harper said a cold-weather army training base would be set up at Resolute Bay and an existing port at a former mine at Nanisivik would be refurbished to supply Arctic patrol vessels.
He said the facilities would bolster Canada's claims to disputed portions of the Arctic.
"Canada's new government understands that the first principle of Arctic sovereignty is use it or lose it," Mr Harper said from Resolute, a small Inuit community about 600km (372 miles) south of the North Pole.


Mr Harper said Canada has a "real, growing" Arctic presence

VIDEO AND AUDIO NEWS
Canada's prime minister visits the Arctic
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CANADA'S NEW ARCTIC MILITARY BASE DELAYED; DAVID PUGLIESE OTTAWA CITIZEN DEFENCE NEWS

By davidpugliese

BUILDING OF CANADIAN FORCES ARCTIC NAVAL FACILITY FACES DELAYS

David Pugliese's Defence Watch

BY DAVID PUGLIESE

Ottawa Citizen

A design contract for the Canadian Forces Nanisivik Naval Facility in Nunavut has now been awarded to a civilian firm but the date that actual construction work on the facility is to begin has already fallen behind from the planned schedule and there could be further delays, Defence Watch has been told.

On Thursday the Defence Department announced that the initial design phase contract has been awarded to a British Columbia firm. Construction work at the naval facility could "possibly begin in 2011" and the installation is forecasted to be operational by 2014, according to a DND statement.

But sources tell Defence Watch that the program could slip further behind schedule, mainly because of construction and environmental issues associated with building projects in the Arctic.

The sources noted that construction at the Nanisivik site was originally scheduled to commence in the summer of 2010. It is estimated the project will cost around \$100 million.

In May, Defence Department officials told a Senate committee that the facility was going to be operational as early as 2012.



Poll of 9,000 people from eight northern nations commissioned by the University of Toronto



Among the key questions in the wide-ranging survey was one that asked respondents about their “preferred approach to resolving Arctic disputes.”

January 25th 2011

In both the northern and southern parts of Canada, which were each surveyed extensively for the study, more than 40 per cent said the country should “pursue a firm line in defending its sections” of the Arctic.

A roughly equal percentage of Canadians said “it is better to negotiate a compromise with other countries” to resolve Arctic disputes, while just eight per cent said the Arctic should be governed as “an international territory like Antarctica.”

Respondents from Iceland (36 per cent) and Russia (34 per cent) came closest to matching Canadians’ determined stance on defending their countries’ Arctic interests.

In the U.S., only 10 per cent of those polled expressed the “firm line” view, while 30 per cent urged compromise and 25 per cent approved of creating an Antarctica-like international territory.





U.S. Arctic Policy



US Arctic Policy Goals



- Meet National & homeland security needs
- Protect the Arctic environment & conserve it's biological resources
- Ensure that natural resource mgmt & economic development in the region is environmentally sustainable
- Strengthen cooperation among Arctic nations
- Involve indigenous communities in decisions that affect them
- Enhance scientific monitoring & research

THE WHITE HOUSE
Office of the Press Secretary

For Immediate Release January 12, 2009

January 9, 2009

NATIONAL SECURITY PRESIDENTIAL DIRECTIVE/NSPD -- 66
HOMELAND SECURITY PRESIDENTIAL DIRECTIVE/HSPD -- 25

MEMORANDUM FOR THE VICE PRESIDENT
THE SECRETARY OF STATE
THE SECRETARY OF THE TREASURY
THE SECRETARY OF DEFENSE
THE ATTORNEY GENERAL
THE SECRETARY OF THE INTERIOR
THE SECRETARY OF COMMERCE
THE SECRETARY OF HEALTH AND HUMAN SERVICES
THE SECRETARY OF TRANSPORTATION
THE SECRETARY OF ENERGY
THE SECRETARY OF HOMELAND SECURITY
ASSISTANT TO THE PRESIDENT AND
CHIEF OF STAFF
ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION
AGENCY
DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET
DIRECTOR OF NATIONAL INTELLIGENCE
ASSISTANT TO THE PRESIDENT FOR NATIONAL SECURITY
AFFAIRS
COUNSEL TO THE PRESIDENT
ASSISTANT TO THE PRESIDENT AND DEPUTY NATIONAL
SECURITY ADVISOR FOR INTERNATIONAL ECONOMIC
AFFAIRS
ASSISTANT TO THE PRESIDENT FOR HOMELAND SECURITY
AND COUNTERTERRORISM
CHAIRMAN, COUNCIL ON ENVIRONMENTAL QUALITY
DIRECTOR OF THE OFFICE OF SCIENCE AND TECHNOLOGY
POLICY
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
COMMANDANT, U.S. COAST GUARD
DIRECTOR, NATIONAL SCIENCE FOUNDATION

SUBJECT: Arctic Region Policy

I. PURPOSE

A. This directive establishes the policy of the United States with respect to the Arctic region and directs related implementation actions. This directive supersedes Presidential Decision Directive/NSC-26 (PDD-26; issued 1994) with respect to Arctic policy but not Antarctic policy; PDD-26 remains in effect for Antarctic policy only.

B. This directive shall be implemented in a manner consistent with the Constitution and laws of the United States, with the obligations of the United States under the treaties and other international agreements to which the United States is a party, and with customary international law as recognized by the United States, including with respect to the law of the sea.



NSPD66/HSPD 25



In carrying out this policy as it relates to national security and homeland security interests in the Arctic, the President has directed the Secretaries of State, Defense, and Homeland Security, in coordination with heads of other relevant executive departments and agencies, to:

- *Develop greater capabilities and capacity*, as necessary, to protect United States air, land, and sea borders in the Arctic region;
- *Increase Arctic maritime domain awareness* in order to protect maritime commerce, critical infrastructure, and key resources;
- *Preserve the global mobility* of United States military and civilian vessels and aircraft throughout the Arctic region
- *Project a sovereign United States maritime presence in the Arctic* in support of essential United States interests; and
- *Encourage the peaceful resolution of disputes* in the Arctic region.

We're not accomplishing what the President said to accomplish!



Law of the Sea Treaty

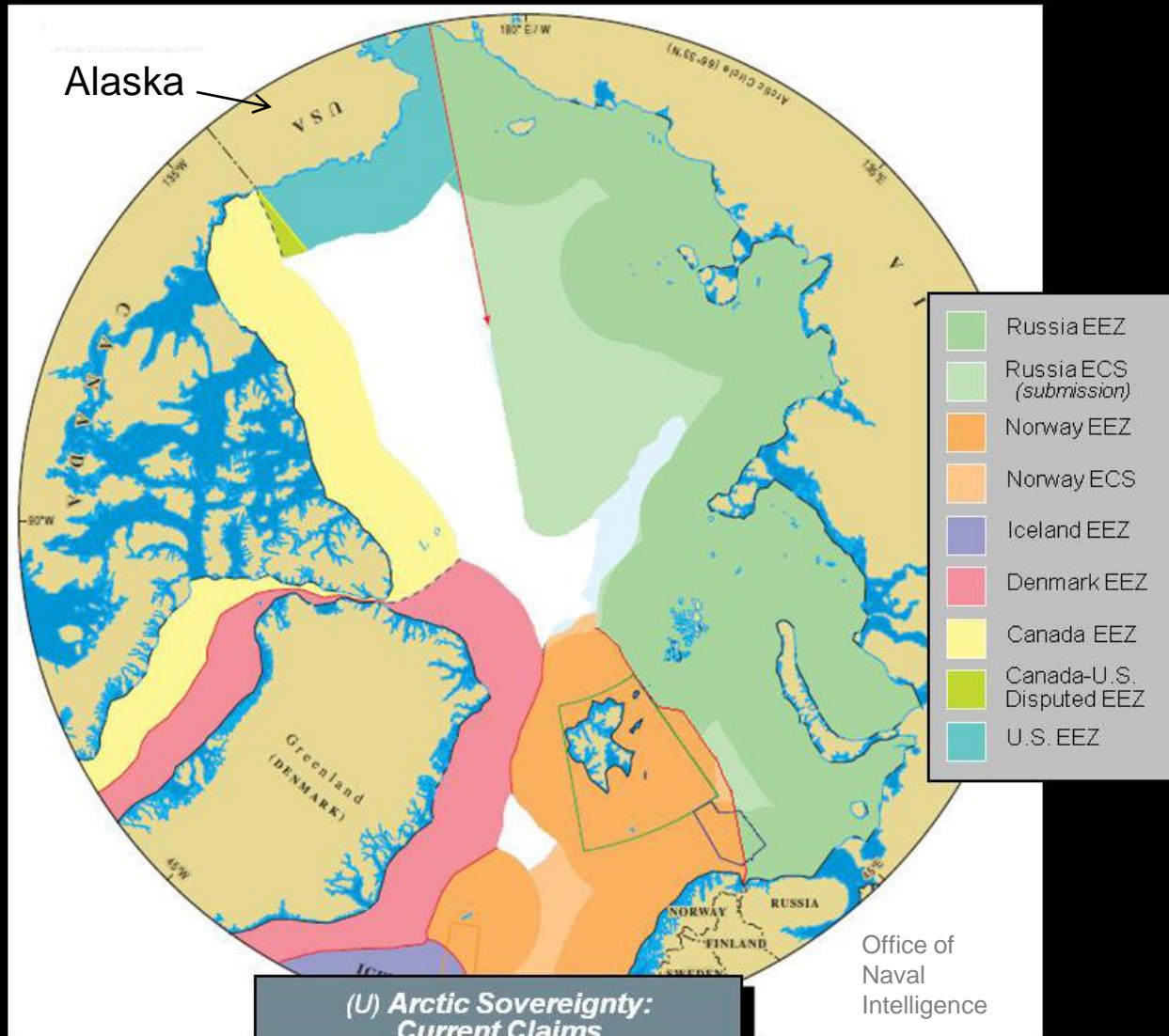


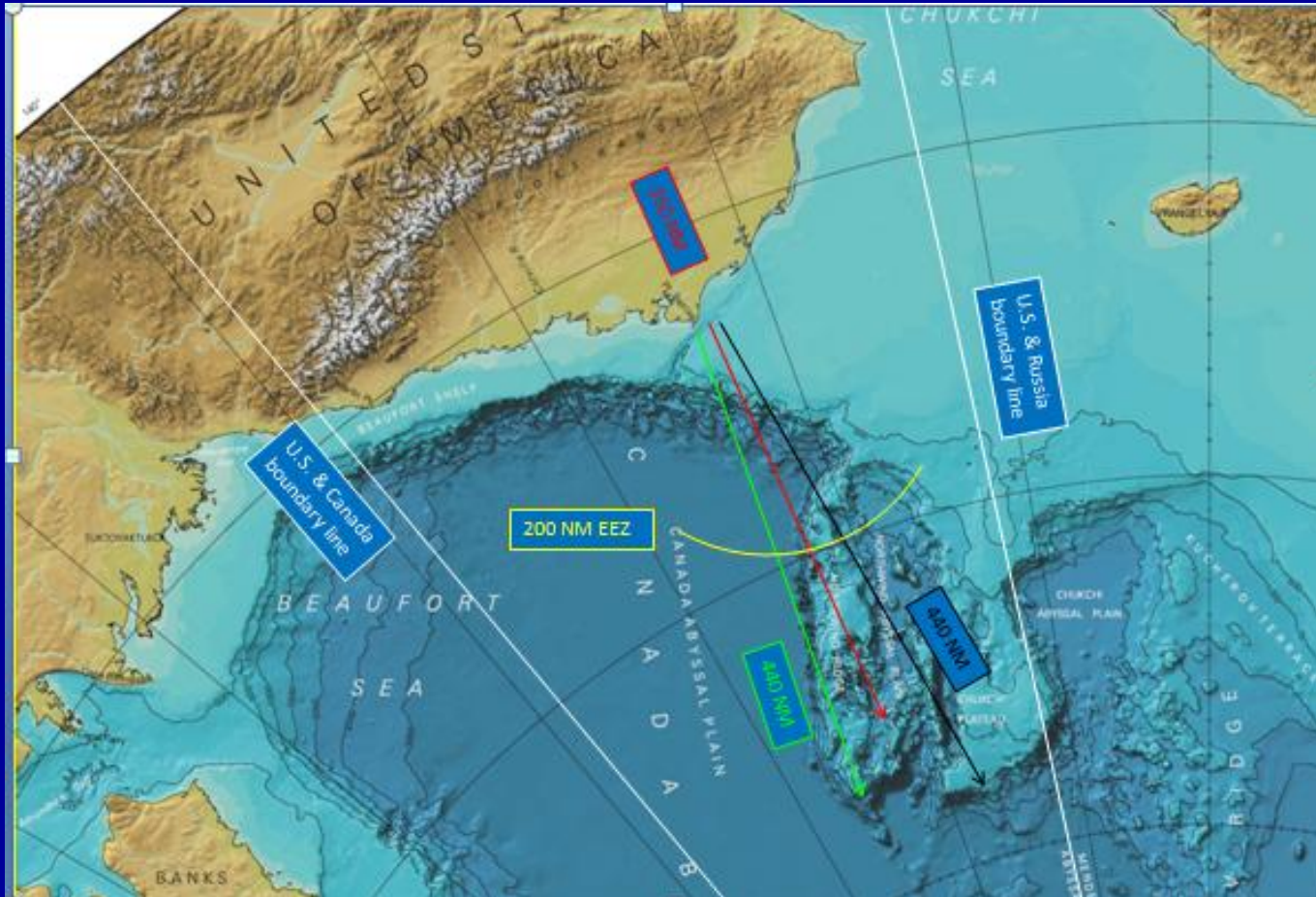
- U.S. must ratify the United Nations Law of the Sea Treaty (UNCLOS) in order to make extended continental shelf claims in excess of the 200 nautical mile Exclusive Economic Zone
- Persistent presence is needed in the U.S. Arctic in order to maintain sovereign rights and to preserve the option to make an Extended Continental Shelf Claim
- Quoting Canadian Prime Harper regarding the Arctic: "Use it or lose it."



Remaining White Space

Note: The United States can make an Extended Continental Shelf Claim north of the U.S. EEZ when UNCLOS is ratified by the U.S. Senate.







Chinese Claims

TORONTO SUN, January 17th, 2011

A top Chinese admiral said earlier this year that because one-fifth of the world's population lives in China, China was entitled to one-fifth of the resources that lie in the Arctic's international waters.

"The Arctic belongs to all the people around the world as no nation has sovereignty over it," Rear Admiral Yin Zhuo said in the spring. "China must play an indispensable role in Arctic exploration as we have one-fifth of the world's population."





USCG Authorities in the Arctic

No other federal agency has a more expansive set of authorities in the Arctic Ocean than the Coast Guard

The United States Coast Guard carries out three basic roles:

- 1) Maritime safety
- 2) Maritime security
- 3) Maritime stewardship

...which are further subdivided into the adjacent eleven statutory missions:

- Defense readiness
- Coastal security, ports and waterways
- Search and rescue
- Marine environmental protection
- Living marine resources (fisheries, etc)
- Ice operations
- Aids to navigation
- Marine safety
- Other law enforcement (interagency support)
- Migrant interdiction
- Drug interdiction

The Coast Guard's responsibilities in the Arctic Ocean are no different than in the Atlantic Ocean, Gulf of Mexico, Great Lakes or any other location that might fall under Congressionally mandated Coast Guard jurisdiction.



U.S. Coast Guard Activities In The Arctic



North Pole C-130 Flight Oct 2007

Arctic Domain Awareness (ADA) C-130 flights twice monthly (Mar-Dec).



Typical Summer Ops (Arctic Crossroads)



- Arctic Domain Awareness
- Cutter Operations
 - Icebreakers, Buoy Tenders, Cutters
- Tailored Force Package Deployments to Arctic Ocean Villages
- Community Engagement
- SAR Exercises





ARCTIC 2010



- Initiated Port Access Routing Study (PARS) study Bering Strait
- installed only U.S. navigational beacon in the Arctic at Point Hope

➤ Conducted first CANUS tabletop exercise to clean up oil spills in the Arctic

➤ Commandant of the U.S. Coast Guard Admiral Robert Papp, Senator Lisa Murkowski and Senator Mark Begich continue to inform Nation about the changes in the Arctic after summer visits





Small Boat Ops off Point Barrow

- One 25' RB-HS small boat
- One 23' Sea Ark
- One 18' Sea Wolf Boat
- Delivered via C-130





2008-2010 Surveys: Joint Canadian/US



US Coast Guard Cutter HEALY:
breaking ice

**Canadian Coast Guard Cutter
LOUIS S. ST. LAURENT:**
following with scientific equipment

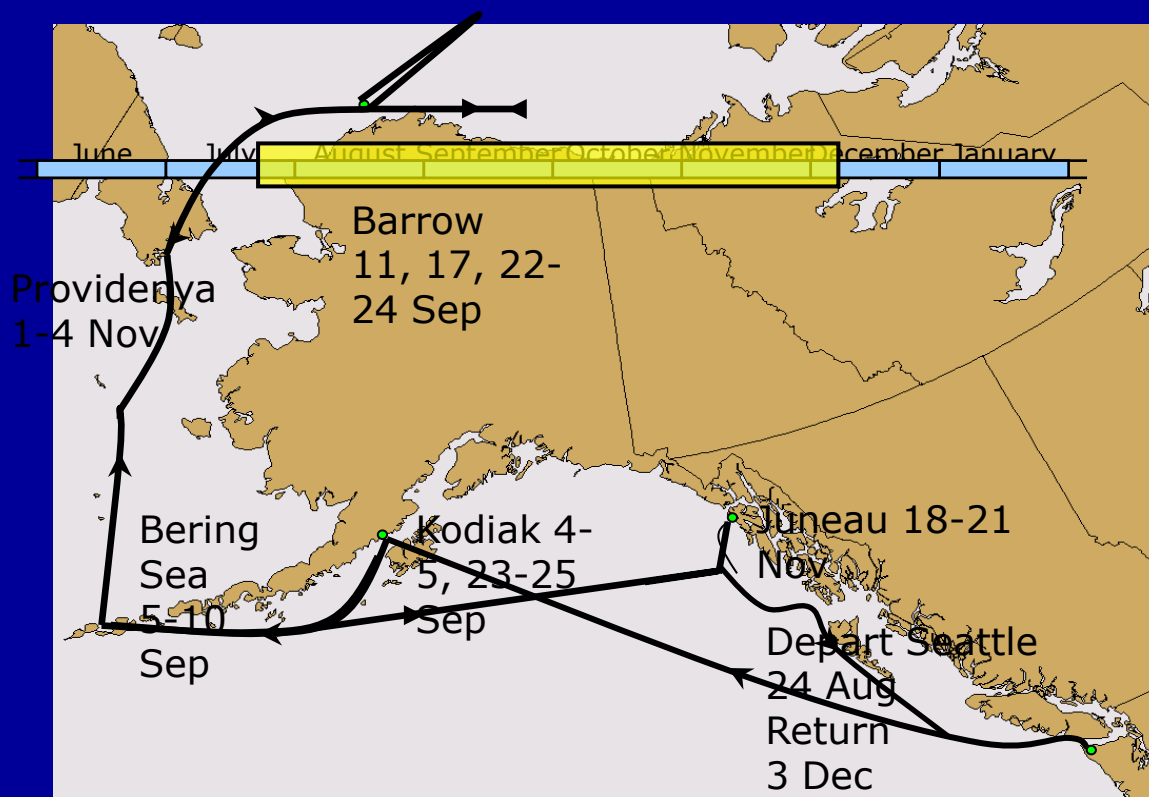




USCGC POLAR SEA



- Normally supports science mission for the National Science Foundation
- Occasional U.S. maritime sovereignty patrols under D17 tactical control.





USCGC SPAR



- Deploy NOAA Buoy
- Spilled Oil Recovery System (SORS)
- Doctors to Little Diomed





USCG Prudhoe Bay

- MSST occasionally deployed to Prudhoe Bay for inshore maritime security
- 2 small boats (RB-HS & SPC-SW), support equipment
- Sling launch boat
- 20 Personnel



UNCLASSIFIED



Arctic Community Outreach



Tours of C-130, H-65 and Cutter ALEX HALEY



Water Safety Training at schools



Educating communities and schools about Coast Guard Missions





Community Service



- Community/Tribal Liaison 11+ Villages
- Medical/Dental/Veterinary/Optomety outreach Team
- Community Project – Beach Cleanup



Photos and layout by Petty Officer Jon-Paul Rios

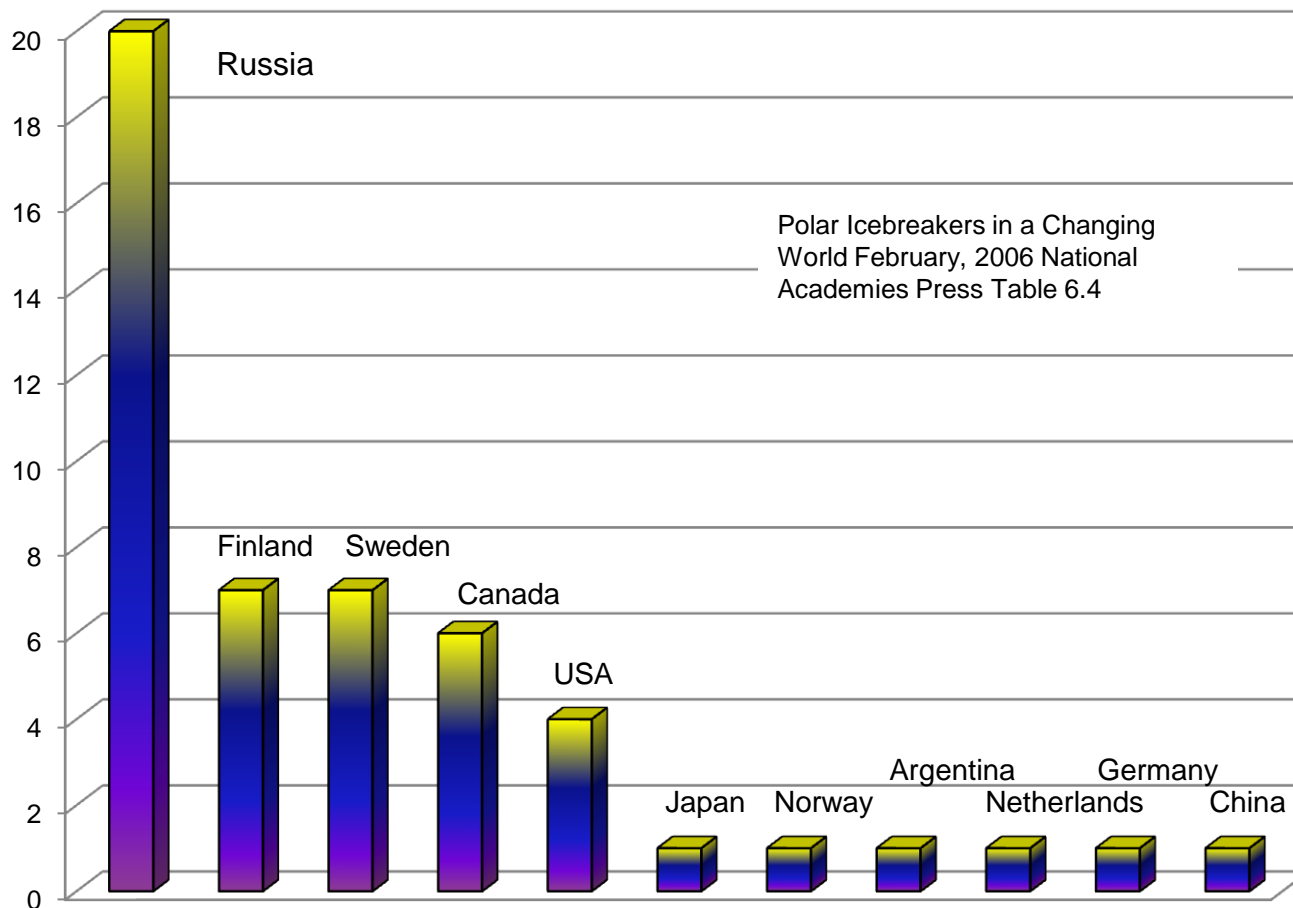


Arctic sovereignty

- NSF is putting U.S. scientists aboard Russian, Canadian, Swedish and other foreign icebreakers operating in the U.S. Arctic. While this may be a cost effective method to maximize science, it diminishes U.S. sovereignty.
- The U.S. should put U.S. scientists aboard U.S. ships operating in the U.S. Arctic.
- Quoting Canadian Prime Minister Harper in 2007 regarding Canadian sovereignty of the Canadian Arctic: "Use it or lose it."
- The U.S. needs persistent U.S. presence to maintain U.S. sovereignty in the U.S. Arctic... which creates a need for U.S. icebreakers or ice reinforced vessels.



Polar Icebreakers of the World





U.S. Polar Ice Breakers



- Operating Budget in 2010 remains with National Science Foundation
- POLAR STAR reactivation 2013
- Long term icebreaker plans uncertain





Arctic Challenges



Long Distance Search And Rescue

**Kodiak to
Point
Barrow is
940 miles
across
three
mountain
ranges**



**About
the
same
distance
as LA to
Seattle!**



Limited Coast Guard Oil Spill Response For Non-RP





Challenges Enforcing Laws In Arctic



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Commercial fishing banned in Arctic waters as of Dec. 3

TIME OUT: NOAA says science can catch up to changing conditions.

By MARY PEMBERTON
The Associated Press

Published: November 3rd, 2009 08:18 PM

Last Modified: November 3rd, 2009 08:19 PM

A plan that puts a large area of the Arctic Ocean off-limits to commercial fishing goes into effect Dec. 3, federal officials said Tuesday.

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The plan was approved by Secretary of Commerce Gary Locke in August.

The National Oceanic and Atmospheric Administration said Tuesday that the plan establishes an orderly process to consider requests to develop fisheries in the Arctic, and it provides time for science to catch up to changing Arctic conditions, specifically global warming and the loss of sea ice.

"We need a rush of scientists into the Arctic, not an armada of cargo

More Climate change stories >>

- [Research seeks links between warming, fishing patterns](#)
- [Ice sculpture parodies Gore on warming](#)
- [Scientists find Western lakes warming faster than land](#)
- [Arctic research bill gains ground](#)
- [Murkowski tries again to limit EPA rules on greenhouse gas](#)



Lessons Learned

- **Infrastructure Insufficient**
- **Lack of effective communication**
- **Small boats & short range helos ineffective**
- **Require icebreakers or ice hardened vessels with embarked helos**
- **Expensive!**
- **Input from indigenous people important**





Persistent, Sovereign, Presence Preserves Future Options



- The arctic is perhaps the most exciting and significant geo-political issue of our generation.
- There are various potential geo-political futures for an evolving arctic...
- but as of today we don't know what the arctic will look like by mid-century.

**“Today is our opportunity
to shape the future!”**

TESTIMONY OF
REAR ADMIRAL CHRISTOPHER COLVIN
COMMANDER, COAST GUARD DISTRICT SEVENTEEN
“CHANGING ARCTIC AND THE NEED FOR FEDERAL INFRASTRUCTURE”
BEFORE THE SENATE COMMITTEE ON COMMERCE,
SCIENCE AND TRANSPORTATION
AUGUST 19, 2010



Questions?

***The Arctic Is Increasingly
Important to the future
Economic Security of the
United States...***